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12PATENTIN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Serial No.: 09/463,801

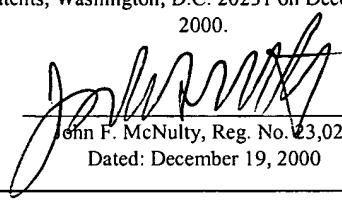
Filed: January 27, 2000

For: MEDIUM FOR PRODUCING AND/OR  
TREATING ALCOHOLIC BEVERAGES,  
ESPECIALLY WINE OR SPARKLING  
WINE, AS WELL AS ITS APPLICATIONSInventor: Holger Lowe  
Rainer Pommersheim

Atty Doc. No.: 678-99

## Certificate of Mailing

I hereby certify that this correspondence is being deposited with the United States Post Office as first class mail postage prepaid in an envelope addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231 on December 19, 2000.

  
 John F. McNulty, Reg. No. 23,028

Dated: December 19, 2000

## COVER LETTER WITH CERTIFICATE OF MAILING

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05 JAN 2001

Legal Staff

International Division

Assistant Commissioner  
for Patents  
Washington, D.C. 20231

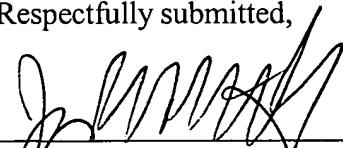
Sir:

Enclosed and attached hereto are the following documents:

- (1) Correspondence with PCT Legal Office;
- (2) Copy of first page of PCT published application;
- (3) Copy of Declaration and Power of Attorney;
- (4) Cover Letter with Certificate of Mailing (duplicate), and
- (5) Paul & Paul postcard to be returned by PTO.

THE COMMISSIONER IS HEREBY AUTHORIZED TO CHARGE ANY ADDITIONAL FEES ASSOCIATED WITH THIS COMMUNICATION, OR CREDIT ANY OVERPAYMENT, TO PAUL & PAUL DEPOSIT ACCOUNT NO. 16-0750, ORDER NO. 16315

Respectfully submitted,

  
 John F. McNulty  
 Reg. No. 23,028  
 Paul & Paul  
 2900 Two Thousand Market St.  
 Philadelphia, PA 19103  
 (215) 568-4900

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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Serial No.: 09/463,801

Filed: January 27, 2000

For: MEDIUM FOR PRODUCING AND/OR  
TREATING ALCOHOLIC BEVERAGES,  
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Inventor: Holger Lowe

Rainer Pommersheim

Atty Doc. No.: 678-99

Assistant Commissioner

for Patents

Washington, D.C. 20231

Attn: Mr. Rafael Bacares, PCT Legal Examiner, PCT Legal Office

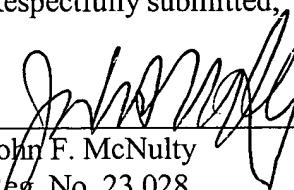
Sir:

Referring to the Decision dated December 6, 2000 received by us December 12, 2000, please note that the International Filing date and the Priority date are incorrect. The correct information is as follows:

International Filing date of PCT/EP98/04726 is 29 July 1998 and the priority application No. 197 32 710.9 is 30 July 1997.

A copy of the front page of the published International application and a copy of the Declaration and Power of Attorney filed with the U.S. application are attached for your reference. We would appreciate you correcting this mistake and notifying us of the same as soon as possible.

Respectfully submitted,

  
John F. McNulty  
Reg. No. 23,028  
Paul & Paul  
2900 Two Thousand Market Street  
Philadelphia, PA 19103  
(215) 568-4900

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FEB 22 2001  
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PCT

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Internationales Büro



EM44-37

INTERNATIONALE ANMELDUNG VERÖFFENTLICHT NACH DEM VERTRAG ÜBER DIE  
INTERNATIONALE ZUSAMMENARBEIT AUF DEM GEBIET DES PATENTWESENS (PCT)

(51) Internationale Patentklassifikation <sup>6</sup> : C12G 1/02, 1/073, C12C 11/09, C12N 11/04		A2	(11) Internationale Veröffentlichungsnummer: WO 99/06527  (43) Internationales Veröffentlichungsdatum: 11. Februar 1999 (11.02.99)
(21) Internationales Aktenzeichen: PCT/EP98/04726  (22) Internationales Anmeldedatum: 29. Juli 1998 (29.07.98)		(81) Bestimmungsstaaten: JP, US, europäisches Patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).	
(30) Prioritätsdaten: 197 32 710.9 30. Juli 1997 (30.07.97) DE		Veröffentlicht <i>Ohne internationalen Recherchenbericht und erneut zu veröffentlichen nach Erhalt des Berichts.</i>	
(71) Anmelder (für alle Bestimmungsstaaten ausser US): INSTITUT FÜR MIKROTECHNIK MAINZ GMBH [DE/DE]; Carl-Zeiss-Strasse 18-20, D-55129 Mainz (DE).			
(72) Erfinder; und (75) Erfinder/Anmelder (nur für US): LÖWE, Holger [DE/DE]; Anna-Seghers-Strasse 3, D-55276 Oppenheim (DE). POMMERSHEIM, Rainer [DE/DE]; Elsa-Brandström-Strasse 77, D-55124 Mainz (DE).			
(74) Gemeinsamer Vertreter: INSTITUT FÜR MIKROTECHNIK MAINZ GMBH; Carl-Zeiss-Strasse 18-20, D-55129 Mainz (DE).			

(54) Title: AGENT FOR PRODUCING AND/OR PROCESSING ALCOHOLIC BEVERAGES, IN PARTICULAR WINE OR SPARKLING WINE, AND USE OF SAID AGENT

(54) Bezeichnung: MITTEL ZUR HERSTELLUNG UND/ODER BEHANDLUNG ALKOHOLHALTIGER GETRÄNKE, INSbesondere WEIN ODER SCHAUMWEIN, SOWIE DESSEN VERWENDUNGEN

(57) Abstract

The invention relates to an agent used in the production and/or processing of alcoholic beverages, in particular wine or sparkling wine. This agent is composed of microcapsules which each have an enveloping membrane that encloses the capsule interior completely. The capsule interior contains cells of at least one species of micro-organism, such as yeast or lactic acid bacteria, and/or one or more enzymes. The invention seeks to produce microcapsules having the following characteristics: ability to permanently immobilize the cells or enzymes; presence of enveloping membranes with adjustable transparency and mechanical stability, in accordance with need; liquefiable content of the microcapsules. To this end, the envelope membrane is composed of at least two radially superimposed layers. Each layer encloses all the layers arranged beneath it completely. The invention also relates to the use of this agent in the production of beer and low-molecular alcohols.

(57) Zusammenfassung

Die Erfindung beschreibt ein Mittel zur Herstellung und/oder Behandlung alkoholhaltiger Getränke, insbesondere Wein oder Schaumwein, das aus Mikrokapseln besteht, die jeweils eine das Kapselinnere vollständig umschließende Hüllemembran aufweisen. Das Kapselinnere weist Zellen mindestens einer Spezies von Mikroorganismen, wie Hefen oder Milchsäurebakterien, und/oder ein oder mehrere Enzyme auf. Die Aufgabe der Erfindung, Mikrokapseln bereitzustellen, die die Zellen bzw. Enzyme dauerhaft immobilisiert, bei denen die Durchlässigkeit und die mechanische Stabilität der Hüllemembran gezielt einstellbar sind, und bei denen der Inhalt der Mikrokapseln verflüssigbar ist, wird dadurch gelöst, daß die Hüllemembran mindestens zwei radial übereinander angeordnete Schichten aufweist. Jede Schicht umschließt alle radial darunter angeordnete Schichten vollständig. Weiterhin betrifft die Erfindung die Verwendung des Mittels zur Herstellung von Bier und niedermolekularen Alkoholen.

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***DECLARATION AND POWER OF ATTORNEY  
FOR PATENT APPLICATION***

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated next to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled **AGENT FOR PRODUCING AND/OR PROCESSING ALCOHOLIC BEVERAGES, IN PARTICULAR WINE OR SPARKLING WINE, AND USE OF SUCH AGENT** the specification of which

is based on PCT/EP98/04726 filed July 29, 1998 which is based on German Patent Application 197 32 710.9 filed July 30, 1997.

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, §1.56(a).

I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

Prior Foreign Application(s)			Priority Claimed	
<u>PCT/EP98/04726</u> (Number)	<u>International</u> (Country)	<u>29 July 1998</u> (Day/Month/Year Filed)	<u>X</u> Yes	<u>—</u> No
<u>19732710.9</u> (Number)	<u>Germany</u> (Country)	<u>30 July 1997</u> (Day/Month/Year Filed)	<u>X</u> Yes	<u>—</u> No

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which

occurred between the filing date of the prior application and the national or PCT international filing date of the application:

(Application Serial No.)	(Filing Date)	(Status)
		(patent, pending, abandoned)

I hereby appoint the following attorneys and/or agents to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

James C. McConnon	18,030	Paul A. Taufer	35,703
John F. McNulty	23,028	Frank J. Bonini, Jr.	35,452
Alex R. Sluzas	28,669	Gary A. Greene	38,897
		William F. Lang, IV	41,928

Address all telephone calls to John F. McNulty at (215) 568-4900.

Address all correspondence to John F. McNulty at Paul & Paul, 2900 Two Thousand Market Street, Philadelphia, Pennsylvania 19103.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under §1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of sole or first inventor Holger Lowe  
Inventor signature Holger Lowe

24.01.2001  
Date

Residence Anna-Seghers-Strasse 3, D-55276 Oppenheim, Germany  
Citizenship German  
Post Office Address Anna-Seghers-Strasse 3, D-55276 Oppenheim, Germany

Full name of second joint inventor Rainer Pommersheim  
Inventor signature Rainer Pommersheim

20.01.2001  
Date

Residence Elsa-Brandstrom-Strasse 77, D-55124 Mainz, Germany  
Citizenship German  
Post Office Address Elsa-Brandstrom-Strasse 77, D-55124 Mainz, Germany



6 DEC 2000

UNITED STATES PATENT AND TRADEMARK OFFICE

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United States Patent and Trademark Office  
Washington, D.C. 20591-0000  
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DEC 12 2000

FILE No. 678-99

In re Application of  
Pommersheim et al.  
Application No.: 09/463,801  
PCT No.: PCT/EP98/04726  
Int. Filing Date: 31 May 1999  
Priority Date: 29 May 1998  
Attorney's Docket No.: 678-99  
For: MEDIUM FOR PRODUCING AND/OR  
TREATING ALCOHOLIC BEVERAGES,  
ESPECIALLY WINE OR SPARKLING WINE,  
AS WELL AS ITS APPLICATION

DECISION

This application is before the PCT Legal Office for consideration of issues arising under 35 USC 371. The above Application Serial No.: 09/463,801 was inadvertently assigned to two international application. Upon review, this inadvertent mistake has been corrected. The correct Application Serial Number for PCT/EP98/04726 is 09/463,801, and all future correspondence dealing with the above international application should refer to the serial number.

This application is being returned to the National Stage Processing for correction of the data and processing.

*Leonard Smith*

Leonard Smith  
PCT Legal Examiner  
PCT Legal Office

*Rafael Bacares*

Rafael Bacares  
PCT Legal Examiner  
PCT Legal Office  
Tel: (703) 308-6312  
Fax: (703) 308-6459

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UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office  
Address: ASSISTANT COMMISSIONER FOR PATENTS  
Washington, D.C. 20231

U.S. APPLICATION NO.		FIRST NAMED APPLICANT	ATTY DOCKET NO.				
09/463801	KUMASAKA	K INTERNATIONAL APPLICATION NO	678-99				
JOHN F. McNULTY PAUL & PAUL 60 EAST 42ND STREET NEW YORK, NY 10165	PCT/EP98/04726 <table border="1"> <tr> <td>I.A. FILING DATE</td> <td>PRIORITY DATE</td> </tr> <tr> <td>31 MAY 99</td> <td>30 JUL 97</td> </tr> </table>			I.A. FILING DATE	PRIORITY DATE	31 MAY 99	30 JUL 97
I.A. FILING DATE	PRIORITY DATE						
31 MAY 99	30 JUL 97						

DATE MAILED: 29 DEC 2000

**NOTIFICATION OF ACCEPTANCE OF APPLICATION UNDER 35 U.S.C. 371  
AND 37 CFR 1.494 OR 1.495**

1. The applicant is hereby advised that the United States Patent and Trademark Office in its capacity as  a Designated Office (37 CFR 1.494),  an Elected Office (37 CFR 1.495), has determined that the above identified international application has met the requirements of 35 U.S.C. 371, and is **ACCEPTED** for national patentability examination in the United States Patent and Trademark Office.

2. The United States Application Number assigned to the application is shown above and the relevant dates are:

16 MAR 2000  
35 U.S.C. 102(e) DATE

16 MAR 2000

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DATE OF RECEIPT OF  
35 U.S.C. 371 REQUIREMENTS

A Filing Receipt (PTO-103X) will be issued for the present application in due course. **THE DATE APPEARING ON THE FILING RECEIPT AS THE "FILING DATE" IS THE DATE ON WHICH THE LAST OF THE 35 U.S.C. 371(C) REQUIREMENTS HAS BEEN RECEIVED IN THE OFFICE. THIS DATE IS SHOWN ABOVE.** *The filing date of the above identified application is the international filing date of the international application (Article 11(3) and 35 U.S.C. 363). Once the Filing Receipt has been received, send all correspondence to the Group Art Unit designated thereon.*

3.  A request for immediate examination under 35 U.S.C. 371(f) was received on \_\_\_\_\_ the application will be examined in turn.

4. The following items have been received:

U.S. Basic National Fee.

Copy of the international application in:  a non-English language.  English.

Translation of the international application into English.

Oath or Declaration of inventors(s) for DO/EO/US.

Copy of Article 19 amendments.  Translation of Article 19 amendments into English. The Article 19 amendments  have  have not been entered.

The International Preliminary Examination Report in English and its Annexes, if any.

Copy of the Annexes to the International Preliminary Examination Report (IPER).  Translation of Annexes to the IPER into English. The Annexes  have  have not been entered.

Preliminary amendment(s) filed 27 JAN 2000 and \_\_\_\_\_.

Information Disclosure Statement(s) filed 31 JUL 2000 and \_\_\_\_\_.

Assignment document.

Power of Attorney and/or Change of Address.

Substitute specification filed \_\_\_\_\_.

Verified Statement Claiming Small Entity Status.

Priority Document.

Copy of the International Search Report  and copies of the references cited therein.

Other: \_\_\_\_\_

Applicant is reminded that any communication to the United States Patent and Trademark Office must be mailed to the address given in the heading and include the U.S. application no. shown above. (37 CFR 1.5)

Paulette Kidwell, Paralegal

FORM PCT/RO/EO/903 (December 1997)

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Telephone: 703-305-3656